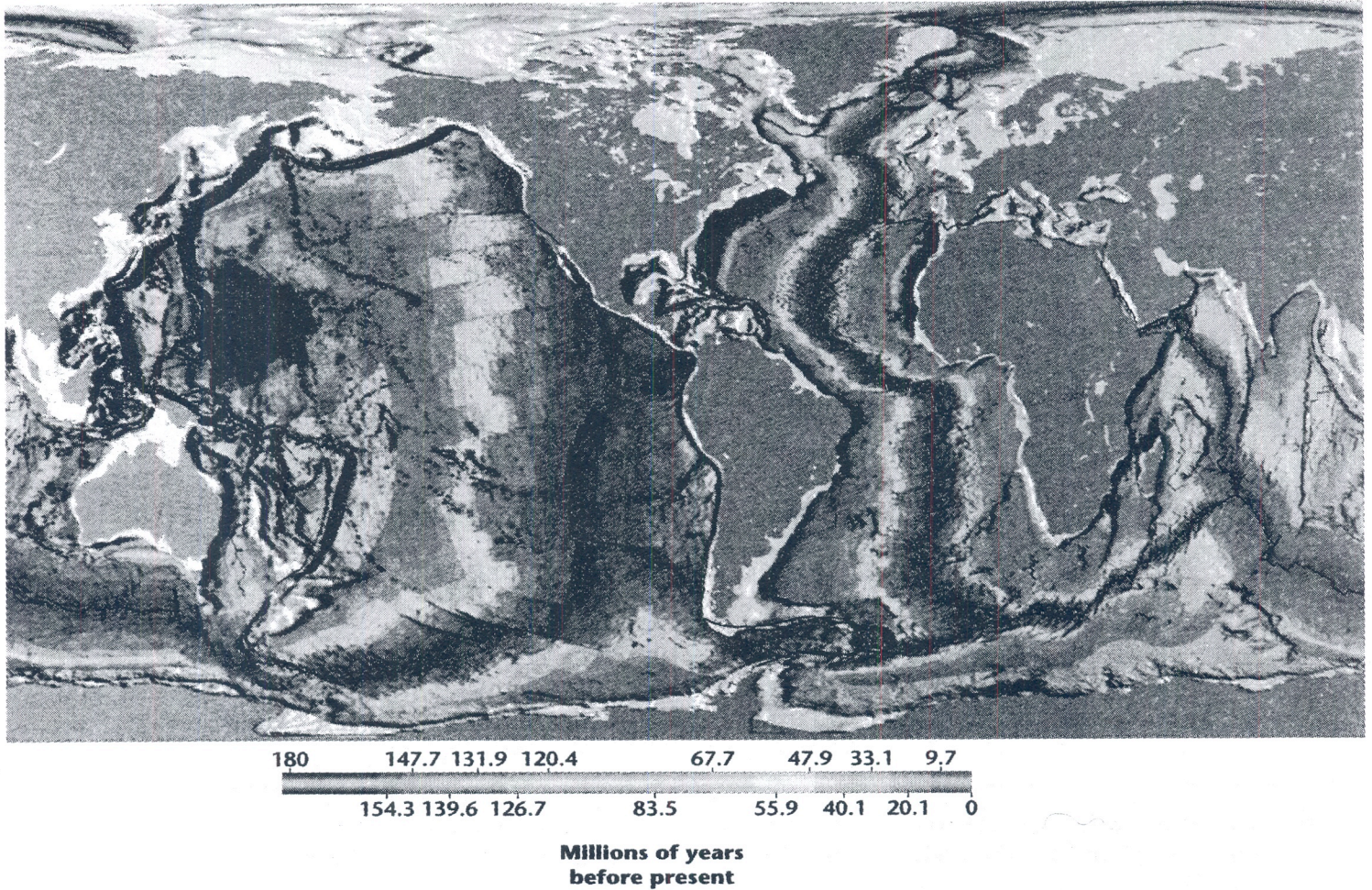


Isochron Map of Ocean-Floor Crust



The thin black lines on the map show the location of ocean ridges.

Isochron Map of Ocean-Floor Crust

1. What does each band of color on the seafloor represent?

2. How did researchers determine the ages of the seafloor crust?

3. What color is used to represent the youngest sections of seafloor? The oldest sections of seafloor?

4. The thin black lines on the map show the locations of ocean ridges. What pattern occurs in the bands of color on either side of ocean ridges?

5. How does the age of the crust change with distance from the ridge? Why?

6. How do the widths of the color bands in the Pacific Ocean compare to the widths of the color bands in the Atlantic Ocean? What can you infer from this comparison about the rate of seafloor spreading?

7. What color is used to represent crust that is 100 million years old? 135 million years old?

8. How old is the ocean crust just off the east coast of the United States?

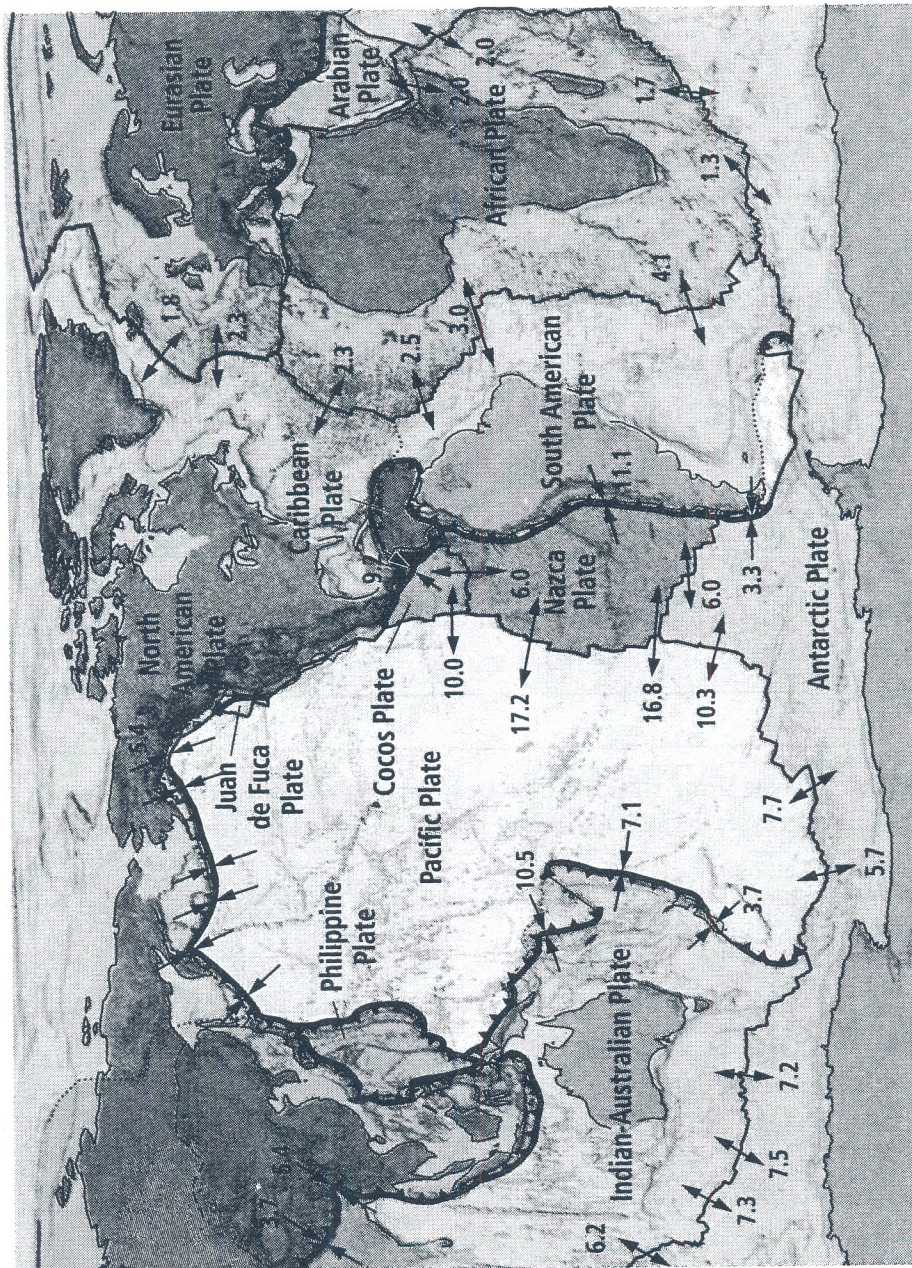
Use with Chapter 17

CP Section 17.3

Apr 10.2

Earth's Tectonic Plates

- ↔ Divergent boundary
- Convergent boundary
- ~ Ridge axis
- Transform boundary
- ▬ Subduction zone
- Zones of extension within continents
- Uncertain plate boundary
- 5.0 Rate of movement (cm/y)



Earth's Tectonic Plates

1. In what direction is the Pacific Plate moving?

2. Are the Pacific Plate and the Antarctic Plate moving toward each other, away from each other, or past each other? Explain your answer.

3. What type of boundary separates the South American Plate from the Nazca Plate? Explain your answer.

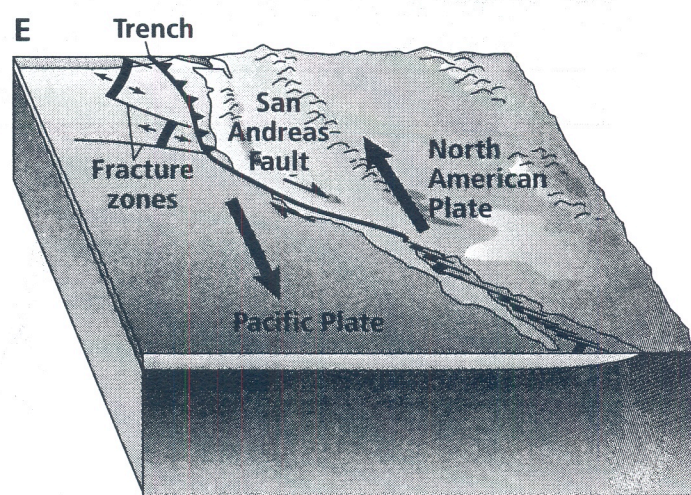
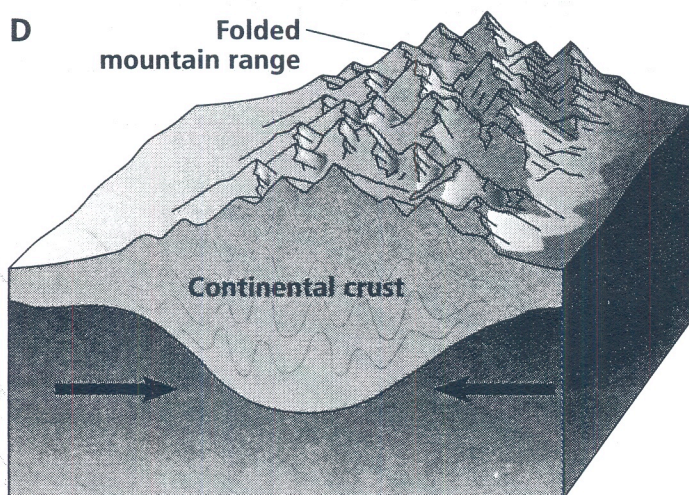
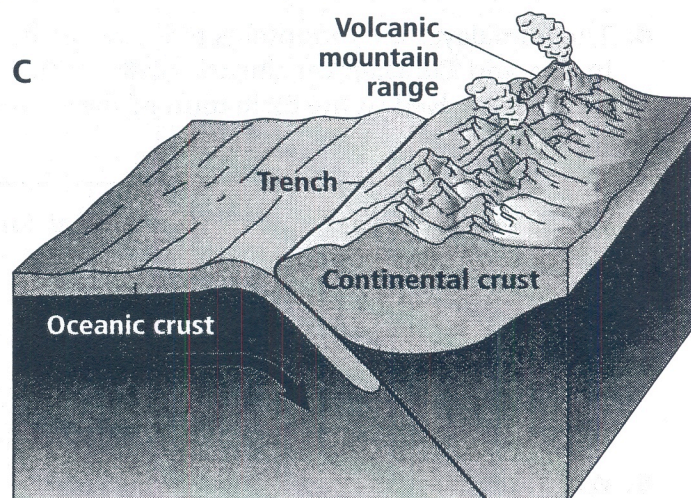
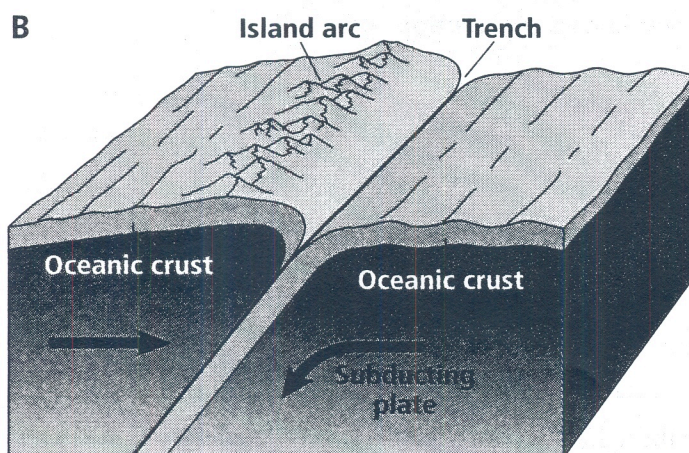
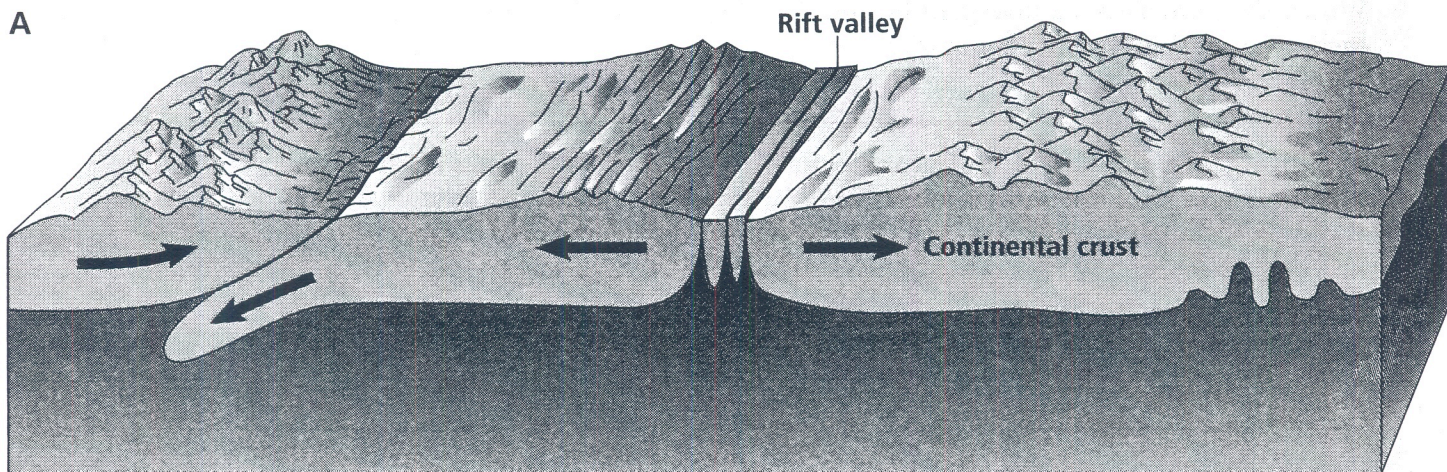
4. Describe the relative motion between the North American Plate and the Pacific Plate.

5. Between which plates is the relative motion the fastest?

6. Would you predict that, over time, the distance between New York and Miami will increase, decrease, or stay the same? Explain your answer.

7. Would you predict that, over time, the distance between New York and Lisbon, a city in southern Europe, will increase, decrease, or stay the same? Explain your answer.

Types of Plate Boundaries



Types of Plate Boundaries

1. Which diagram shows a divergent boundary? How do the plates move relative to each other at this type of boundary?

2. At a divergent boundary, what feature forms when two oceanic plates are involved? When two continental plates are involved?

3. Which diagram shows oceanic-oceanic convergence? Describe what occurs at this type of plate boundary.

4. The Himalayas are mountains that are forming as a result of the collision of the Indian and Eurasian continental plates. Which diagram shows a plate boundary like the one involved in the formation of these mountains?

5. Which diagram shows oceanic-continental convergence? Describe what occurs at this type of plate boundary.

6. Which diagram shows a transform boundary? Describe what occurs at this type of plate boundary.

TYPES OF PLATE BOUNDARIES

Name _____ Block _____

Type of Boundary	Sketch of Boundary	Direction of Movement	Description/Features of Plate Boundary	Examples
Diverging Plate Boundary	Cont - cont Ocean - Ocean			
Sliding Boundary				
Conversion Boundary *** Collision	Cont - cont			
Collision Boundary *** Subduction	Ocean-Ocean Ocean-Continent	Ocean-Ocean Ocean-Continent	Ocean-Ocean Ocean-Continent	Ocean-Ocean Ocean-Continent